

Abstract of the Disclosure

An improved inkjet printhead characterized by a high level of structural integrity. The printhead is designed to prevent detachment of the internal ink barrier layer from the underlying substrate and thin-film electrical circuitry thereon. This goal is accomplished by providing at least one upwardly-extending metallic anchor member on the substrate which is isotropically-etched to generate a structure having concave, inwardly-extending sides. The barrier material is placed on and around the anchor member and surrounding circuitry, with the anchor member mechanically securing the barrier material in position. Each anchor member is preferably fabricated by depositing an initial (lower) layer of metal on the substrate (preferably tantalum), followed by an upper layer (optimally gold) on the initial layer. Selective etching of these components will produce a specialized arrangement of anchor members and circuit elements. These components are then coated with the barrier material as noted above.